

WHAT IS CLAIMED IS:

1. A method for using an alignment target configured to provide a desired alignment offset for a process on a wafer substrate, comprising:
  - forming one or more sub-targets on the alignment target, such that the alignment target has a geometry design;
  - aligning an alignment system with respect to all of the one or more sub-targets; and
  - using an algorithm to characterize the process and to calculate alignment of the alignment system.
2. The method according to claim 1, wherein the process is asymmetric.
3. The method according to claim 2, wherein the asymmetric process is a chemical mechanical polishing (CMP) process.
4. The method according to claim 2, wherein the asymmetric process is a deposition process.
5. The method according to claim 1, wherein the process is symmetric.
6. The method according to claim 1, wherein the geometry design for the alignment target is comprised of a left edge with a comb like structure and a right edge with a comb like structure, wherein the left edge has a geometry density and the right edge has a geometry density.
7. The method according to claim 6, wherein the left edge geometry density and the right edge geometry density are symmetric.

8. The method according to claim 6, wherein the left edge geometry density and the right edge geometry density are asymmetric.
9. The method according to claim 6, wherein the geometry design for the alignment target comprises an increase in the geometry density of the left edge.
10. The method according to claim 9, wherein the increase in the geometry density of the left edge comprises an increase in the frequency of teeth in its comb like structure.
11. The method according to claim 6, wherein the geometry design for the alignment target comprises a decrease in the geometry density of the left edge.
12. The method according to claim 11, wherein the decrease in the geometry density of the left edge comprises a decrease in the frequency of teeth in its comb like structure.
13. The method according to claim 6, wherein the geometry design for the alignment target comprises an increase in the geometry density of the right edge.
14. The method according to claim 13, wherein the increase in the geometry density of the right edge comprises an increase in the frequency of teeth in its comb like structure.

15. The method according to claim 6, wherein the geometry design for the alignment target comprises a decrease in the geometry density of the right edge.
16. The method according to claim 15, wherein the decrease in the geometry density of the right edge comprises a decrease in the frequency of teeth in its comb like structure.
17. The method according to claim 1, wherein the geometry design of the alignment target is comprised of two or more sub-targets, wherein each sub-target is defined as having a left edge with a comb like structure and a right edge with a comb like structure, wherein the left edge has a geometry density and the right edge has a geometry density.
18. The method according to claim 17, wherein one or more of the sub-targets has left edge geometry density and right edge geometry density that is symmetric.
19. The method according to claim 17, wherein one or more of the sub-targets has left edge geometry density and right edge geometry density that is asymmetric.
20. The method according to claim 17, wherein the geometry design for the alignment target comprises an increase in the geometry density of the left edge of one or more of the sub-targets by increasing the frequency of teeth in its comb like structure.

21. The method according to claim 17, wherein the geometry design for the alignment target comprises a decrease in the geometry density of the left edge of one or more of the sub-targets by decreasing the frequency of teeth in its comb like structure.
22. The method according to claim 17, wherein the geometry design for the alignment target comprises an increase in the geometry density of the right edge of one or more of the sub-targets by increasing the frequency of teeth in its comb like structure.
23. The method according to claim 17, wherein the geometry design for the alignment target comprises a decrease in the geometry density of the right edge of one or more of the sub-targets by decreasing the frequency of teeth in its comb like structure.
24. The method according to claim 17, wherein the geometry design for the alignment target comprises varying the width of one or more of the right edges of one or more of the sub-targets.
25. The method according to claim 17, wherein the geometry design for the alignment target comprises varying the width of one or more of the left edges of one or more of the sub-targets.
26. An alignment target, comprising:  
a left portion having a geometry design and a comb like structure; and  
a right portion having a geometry design and a comb like structure,  
whereby the alignment target has a geometry design that provides an desired alignment offset for an asymmetric process on a wafer substrate.

27. The alignment target of claim 26, wherein the left and right portions are left and right edges.
28. The alignment target of claim 26, wherein the left and right portions are left and right sides.
29. The alignment target of claim 26, wherein the left and right portions are formed in each of one or more sub-targets.
30. The alignment target of claim 29, wherein one or more of the sub-targets has left edge geometry density and right edge geometry density that is symmetric.
31. The alignment target of claim 29, wherein one or more of the sub-targets has left edge geometry density and right edge geometry density that is asymmetric.
32. The alignment target of claim 26, wherein the process is asymmetric.
33. The alignment target of claim 26, wherein the asymmetric process is a chemical mechanical polishing (CMP) process.
34. The alignment target of claim 26, wherein the asymmetric process is a deposition process.
35. The alignment target of claim 26, wherein the process is symmetric.